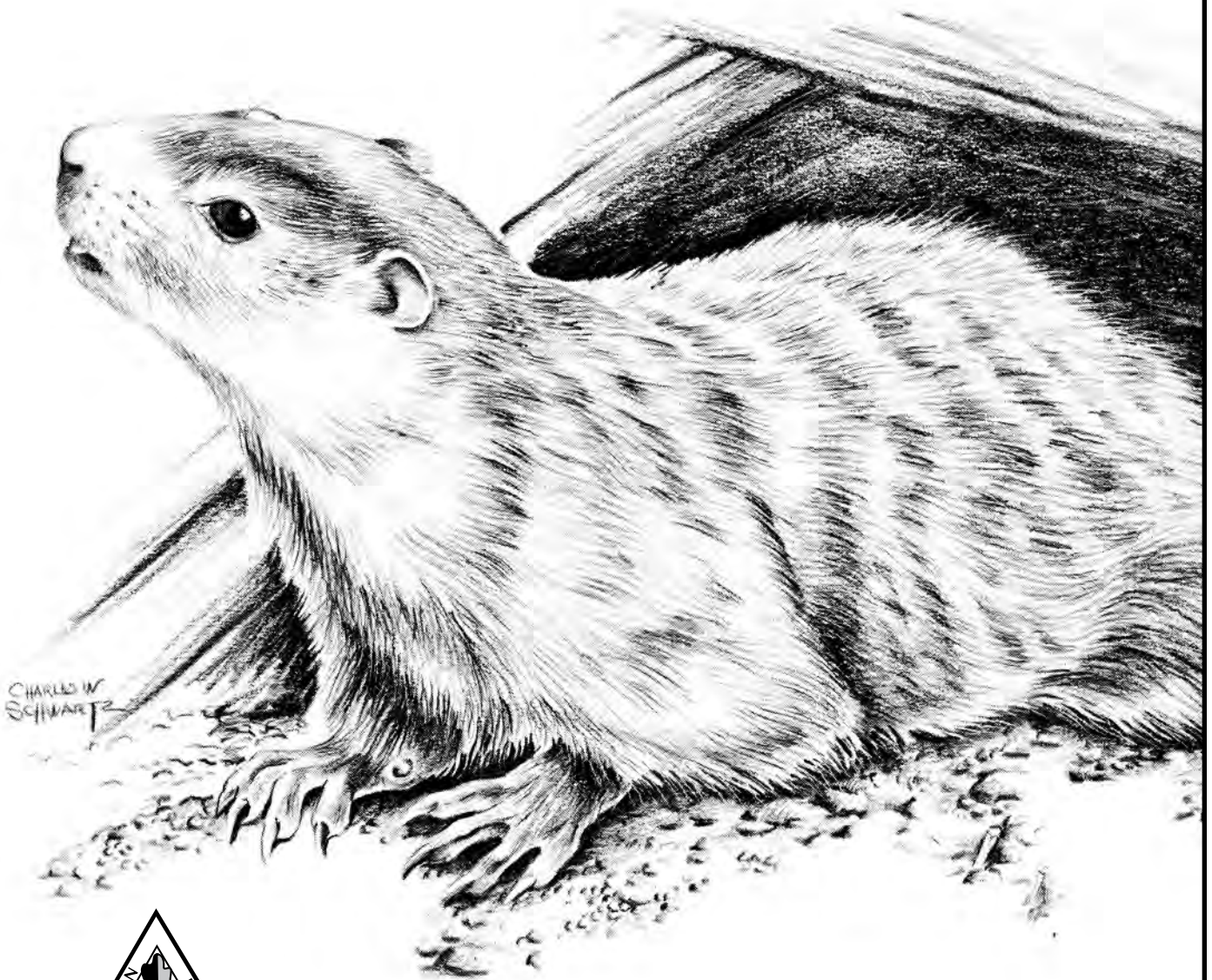


Missouri's Groundhogs

A Guide to Nuisance Prevention and Damage Control



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The Missouri Department of Conservation would like to thank MU Extension for materials excerpted here from their publication *Managing Woodchuck Problems in Missouri*, by Robert A. Pierce II, Department of Fisheries and Wildlife Sciences, and Ron McNeely, Missouri Department of Conservation.

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The *Wildlife Code of Missouri* classifies the groundhog as a furbearer and game mammal that may be taken during the prescribed trapping season. See current regulations for details. The *Code* also specifies that you may shoot or trap damage-causing groundhogs out of season without a permit. Refer to 3 CSR 10-4.130 Owner May Protect Property; Public Safety of the *Code* for details and restrictions.



INTRODUCTION TO MISSOURI'S GROUNDHOGS

The groundhog (*Marmota monax*) — also known as a woodchuck or whistle pig — is a common Missouri rodent in the family Sciuridae and is one of Missouri's most widely distributed mammals. They are found statewide but are rare in the Mississippi Lowlands, where the water table is so high that denning sites are limited. The name groundhog is possibly derived from an Algonquian Indian name for this species. They are also sometimes referred to as whistle pigs for their loud, shrill alarm whistles.



LIFE HISTORY

Physical characteristics

Groundhogs have short, powerful legs and a medium to long, bushy, and somewhat flattened tail. The long, coarse fur on the back is a grizzled grayish brown with a yellowish or reddish cast. Groundhogs weigh least in spring when they are just out of hibernation and are heaviest in fall prior to hibernation.

Food

The groundhog is almost a complete vegetarian, eating leaves, flowers, and soft stems of various grasses, field crops such as clover and alfalfa, and many kinds of wild herbs. Certain garden crops like peas, beans, and corn are favorites, and they occasionally climb trees to obtain apples and pawpaws.

Reproduction

Groundhogs hibernate in burrows from late October to sometime in February. Breeding commences soon after they emerge. Gestation lasts 31–33 days; the single, annual litter of two to nine young arrives toward the end of March. At birth, the 4-inch young are naked, blind, and helpless. Their eyes open after four weeks, and they begin to emerge from the den at six to weeks old. By midsummer, the young weigh about 4 pounds and may dig temporary burrows before moving further away to establish their own territories.

Behavior

Groundhogs are most active during early morning and late afternoon when they are feeding. Adults typically consume between 1 and 1.5 pounds of vegetation daily. Groundhogs can climb trees for food and protection. In late August and September, groundhogs prepare for hibernation and have voracious appetites. Hibernation usually occurs from October through February. During this deep sleep, body temperature drops and heart rate slows to approximately four beats per minute.

Habitat

Good groundhog habitat can be found throughout Missouri. Groundhogs prefer a mixture of open farmland, woods, fencerows, and roadsides. They live in burrows usually located in fields, along roadsides, at the base of trees,

and along borders between timbered areas and open land. Their burrows can also be found along fencerows, heavily vegetated gullies, streams, and around building foundations.

Main entrances to burrows are easily identified by mounds of excavated dirt adjacent to a 10- to 12-inch-diameter hole, often next to a tree stump or rock. Burrow systems are extensive and each system has at least two entrances. Some secondary entrances are difficult to find because they are dug from below ground and do not have the mounds of dirt beside them. These entrances often serve as escape routes. Tunnels lead to an enlarged chamber 3–6 feet underground containing the groundhog's nest made of mostly dried grass. This dead-end nest chamber is sealed with soil during the winter and serves as a hibernation chamber.



Burrow construction

An understanding of burrow construction and groundhog movements within and around crop fields is important for effective control programs. Sometimes groundhogs are only controlled temporarily because the number of active burrows or the number of groundhogs within a field and its surrounding area is underestimated.

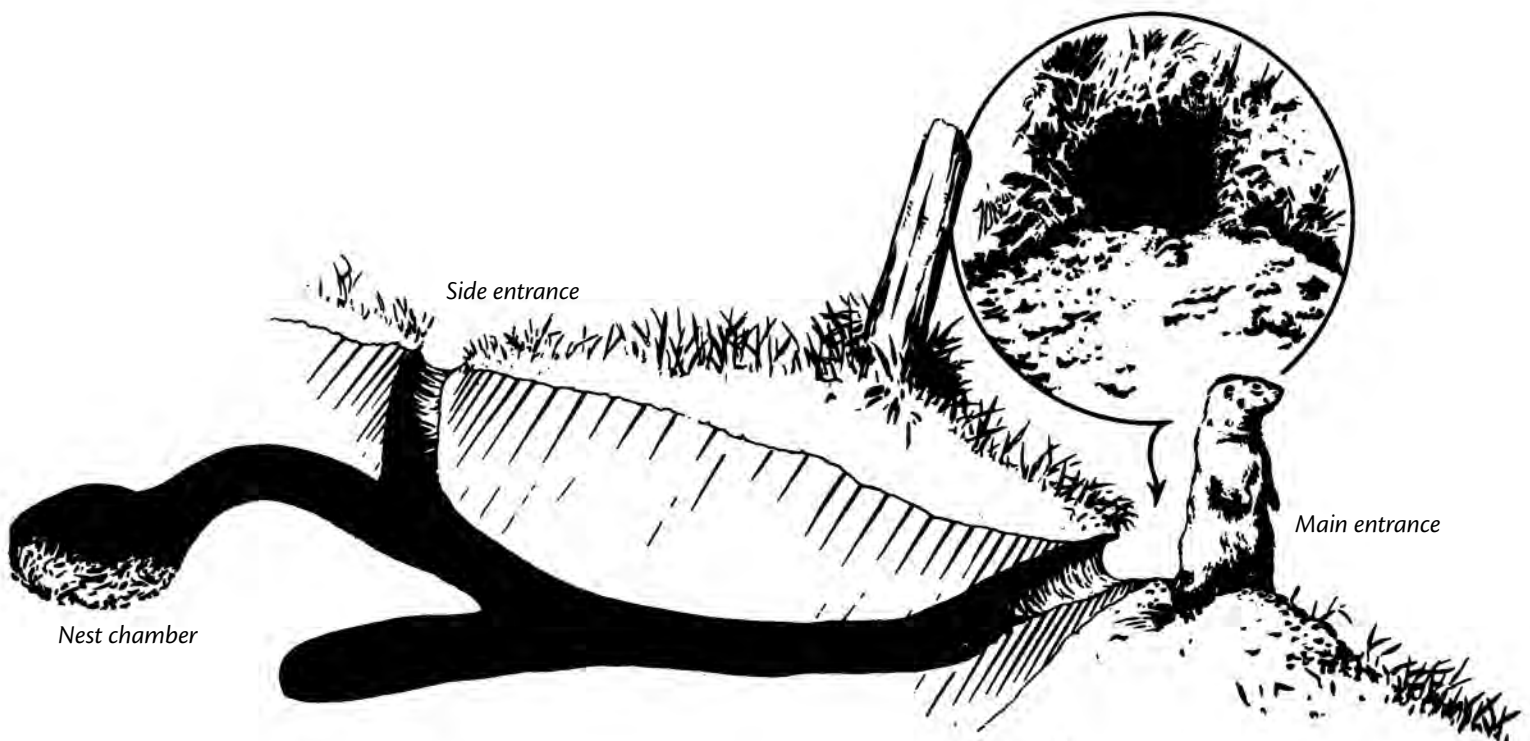
Groundhogs often construct separate winter and summer dens. Winter dens are usually located within wooded or brushy areas and serve as hibernation chambers, although occasionally they are used year-round.

These dens typically have one opening, with the hibernation chamber situated below a tree or stump for protection against intruders. The winter den is abandoned by the groundhog several weeks after they emerge from hibernation.

The animals then move into nearby grass or crop fields and construct their summer dens. Summer dens contain between two and five openings, but typically there is one main entrance and one or more escape holes.

The daily home range of groundhogs varies considerably. In favorable habitats such as soybean fields, they may forage

only 20 to 30 yards from their home dens. In less favorable habitats like woodlots, road edges, and residential areas, the groundhog may travel several hundred yards daily to reach a feeding area. Generally only one or two adult groundhogs will inhabit one acre, although occasionally there may be more. Groundhogs are territorial and usually defend their dens against other groundhogs except during the breeding season when the male and female occupy the same den.



The groundhog's feeding and burrowing habits can result in conflicts with property owners. Burrows and mounds can be hazardous to farm equipment and livestock, and burrows can undermine concrete building foundations, porches, and driveways.

The *Wildlife Code of Missouri* classifies the groundhog as a game mammal that may be taken during the prescribed hunting season (see current regulations at mdc.mo.gov for details). Taking groundhogs during the prescribed season can help control their numbers. Cage-type traps are allowed as a hunting method. The *Wildlife Code* also specifies that you or your representative may shoot or trap groundhogs out-of-season without a permit if they are causing

damage to property. Refer to 3 CSR 10-4.130 of the *Wildlife Code* for details and restrictions.

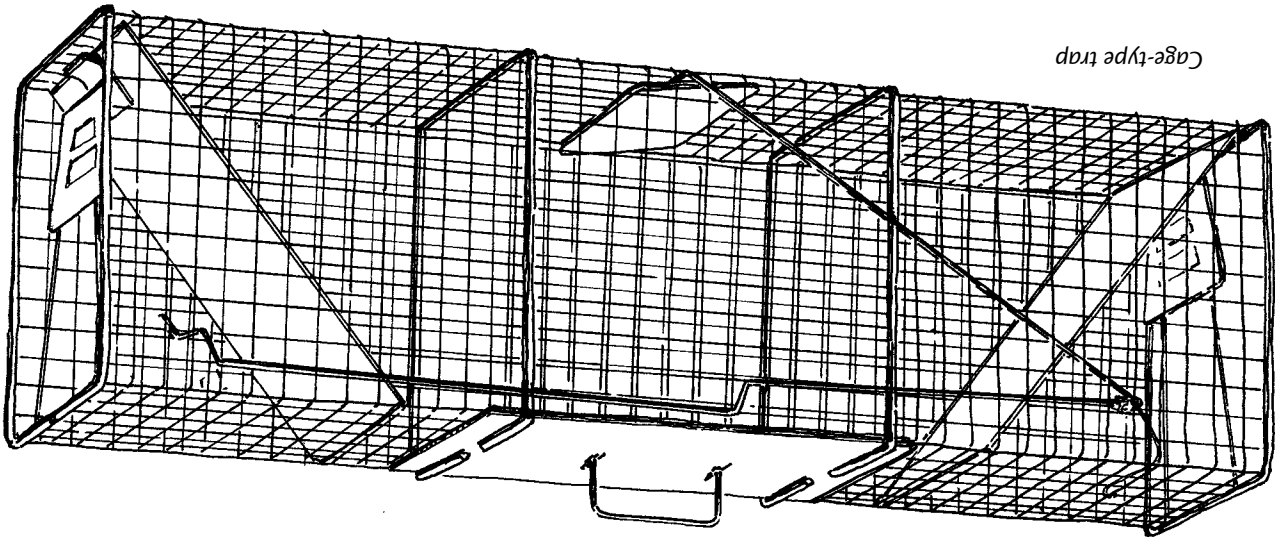
Trapping

Cage traps

Traps are effective. Cage-type traps should be clean and set during daylight hours. Close or disable the trap at night to prevent non-target catches. Place the trap close to, but not blocking, the burrow entrance or in the pathway the groundhog is traveling. Covering or camouflaging the trap is not necessary. Bait with pieces of apple, cantaloupe, broccoli, cauliflower, or other produce with a strong smell. Fresh bait works best, so replace as needed. Place a few small pieces of bait in the pathway from

Lethal traps

Body-gripping traps are not allowed for dry-land sets in Missouri without a special permit. Foot-hold traps are effective but require special skill and experience. Restrictions on use apply, so see current regulations at mdc.mo.gov for details. If this type of trap is needed, your county conservation agent can likely provide the name of a local trapper who can assist you. In some situations, the Conservation Department's wildlife damage biologist can provide instruction, equipment, and additional technical assistance.

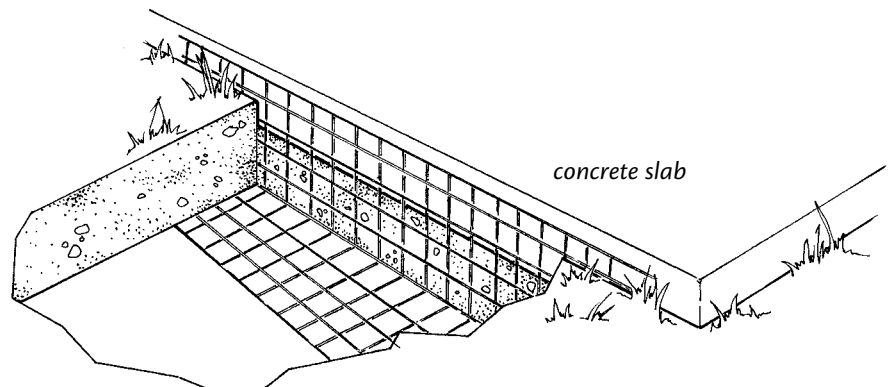
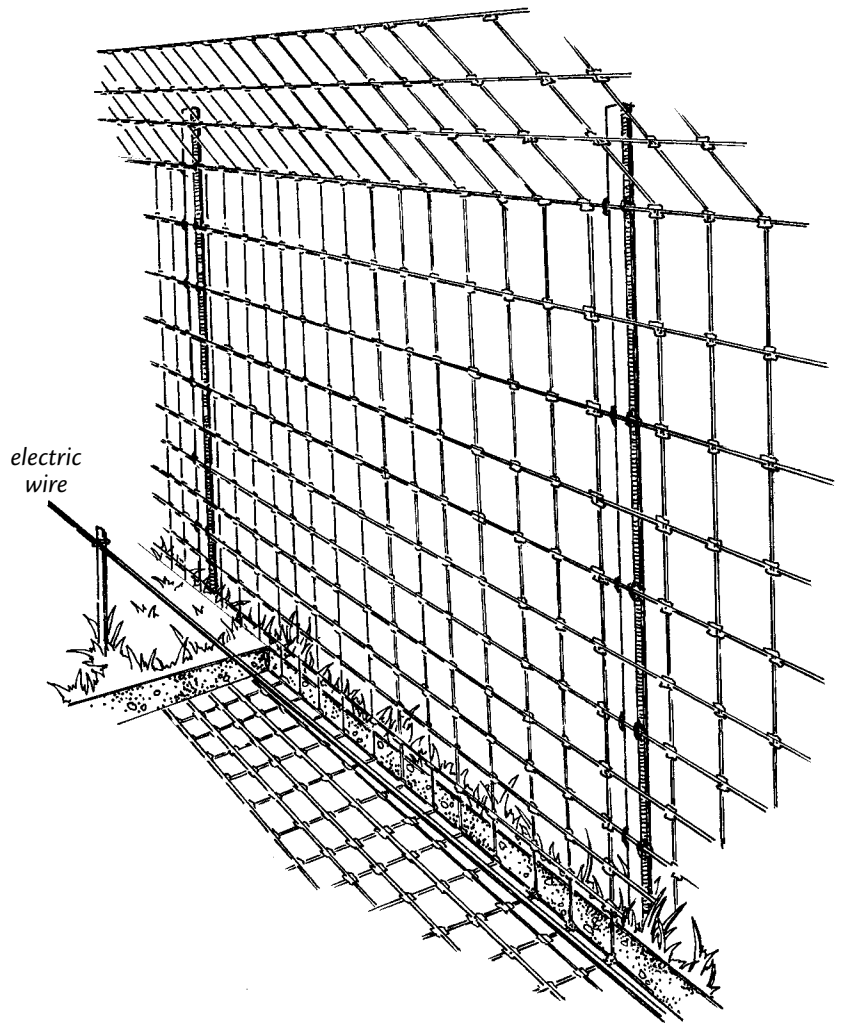


Cage-type trap

Fencing

Fencing can reduce damage, but groundhogs are good climbers and can easily scale wire fences unless precautions are taken. Fences should be at least 3 feet high and made of heavy poultry wire or 2-inch mesh woven wire. Bending the top 15 inches of the wire fence outward at a 45-degree angle will prevent groundhogs from climbing over the fence. To prevent burrowing under the fence, bury the lower edge 10 to 12 inches below ground, or bend the lower edge in an L-shaped, 90-degree angle leading away from the garden or damaged area and buried 1 to 2 inches below ground. Prevent groundhogs from burrowing under concrete slabs by burying L-shaped wire mesh along the edge.

An electric wire used in conjunction with fencing can enhance effectiveness. Place an electric wire 4 to 5 inches off the ground and the same distance outside the fence. When connected to a UL-approved fence charger, the electric wire will prevent climbing and burrowing. In some instances, an electric wire alone, placed 4 to 5 inches above the ground, can deter groundhogs from entering gardens. Vegetation in the vicinity of any electric fence should be removed regularly to prevent the system from shorting out.



Shooting

Groundhogs can be shot with conventional firearms, if allowed by local ordinance.

Harassment

Harassing groundhogs can help deter them from causing damage to gardens or homes. Inexpensive scare devices such as Mylar streamer tape or aluminum pie pans strung up on short posts create movement and flashing that is unfamiliar to the groundhog and may be temporarily helpful in discouraging them from using your property. Occasionally, groundhogs become accustomed to people and do not scare as easily. In these cases, dynamic tactics such as spraying them with a hose may work to make them feel unwelcome.

Fumigants and repellents

Ammonia-soaked rags can be an effective repellent for groundhogs placed in the opening of the burrows. Watering down a groundhog den can be an effective deterrent, as they do not like to sleep in a wet den. Place a hose in the opening of a burrow and trickle water in every day for a week to 10 days. This may encourage the groundhog to move on.

Gas cartridges, which are available at farm and garden supply stores, have proven to be effective. They produce

carbon monoxide that accumulates in lethal amounts when confined within the burrow system. Gas cartridges are filled with combustible materials that are ignited by lighting a fuse. They are not bombs and will not explode if properly prepared and used.

Caution: Avoid prolonged breathing of smoke. Do not use near buildings or combustible materials. Gas cartridges should be used at night when groundhogs are in their dens.

Instructions for using gas cartridges

- With a spade, cut a clump of sod slightly larger than the opening of the burrow and place it nearby.
- Punch five pencil-size holes in the end-cap of the cartridge. Insert the fuse to half its length into one of the holes. The cartridge is now ready to use.
- Kneel at the burrow opening, light the fuse and immediately place the cartridge as far down the hole as you can. Do not throw it.
- Immediately close the burrow opening by placing the sod — grass side down — over the opening to make a tight seal. (Placing sod grass side down prevents smothering the cartridge with loose dirt). Garbage can covers, sandbags, or other suitable closing devices may be used instead of sod.
- Wait for three or four minutes while watching nearby holes for escaping smoke, then plug them. Repeat until all burrows are closed.

BENEFITS OF GROUNDHOGS

Groundhogs are another part of our state's wildlife diversity, and should not be viewed only as pests. Their burrows provide protection for a number of other wildlife species. Abandoned burrows provide escape and protection for many kinds of animals including rabbits, raccoons, foxes, weasels, and opossums. Many

people enjoy observing groundhogs, as they are one of the few large, wild mammals commonly observed during the day. Thus, they are an interesting part of Missouri's fauna and should be controlled only when they cause damage.

Groundhogs may be controlled throughout the year if they damage

your property. If the methods listed here do not alleviate your problem, the Department can provide technical assistance through the Wildlife Damage Management Program. For more information, contact your local Department office.



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